

structure, the ferroelectric layer having a thermal compression rate different from the thermal compression rate of the prestress layer, the layered structure having a prestress induced by heating and subsequently cooling the layered structure. Applicants respectfully assert that claim 1 as now written is not anticipated by the five references cited by the Examiner because none disclose a prestress in the layered structure of the ferroelectric device induced by a thermal process, i.e. heating and cooling, and because none disclose a ferroelectric layer and a prestress layer having different thermal compression rates from one another. Accordingly, Applicants respectfully solicit reconsideration and withdrawal of the rejections to claims 1, 3, 4, 6, and 7.

2. 35 U.S.C. § 103 (a) Rejections

The Examiner rejected claims 2, 5 and 8 under 35 U.S.C. 103(a) as being unpatentable over Corwin or Kolm in view of Lazarus, Stein or Shafft (815). In particular, the Examiner determined that Corwin and Kolm teach the ferroelectric device of the present invention except for the selection of some specific materials and the prestress layer does not include reinforcing material. However, Lazarus, Stein and Schafft (815) teach using composite, reinforced layers adjacent a piezoelectric layer for protection and strength. The Examiner thus concluded that for at least these reasons it would have been obvious to one of ordinary skill in the art to provide Corwin or Kolm with a reinforced prestress layer. The Examiner further noted that selection of specific materials has long been held to be within the skill expected of the routineer and therefore would have been obvious to one of ordinary skill in the art.

Applicants respectfully traverse the Examiner's assertion. Without addressing the Examiner's conclusion that providing Corwin or Kolm with a reinforced prestress layer would be obvious to one with ordinary skill in the art, Applicants reassert the arguments made in the first section of the Remarks in stating the five cited references, including Corwin and Kolm, do not anticipate the present invention as now claimed in amended claim 1. Moreover, the five cited references, alone or in view of Lazarus, Stein, and Schafft (815) do not teach or suggest the novel features of the present invention. One of ordinary skill in the art would not have been led to select the prestress layer of the present

invention as given in claim 1, which creates a prestress on the layered structure of the ferroelectric device after undergoing a heating and subsequent cooling process and which has a different thermal compression rate than the ferroelectric layer. Because the features of claim 1 would not be obvious to one with ordinary skill in the art, the addition of a reinforcing material in the prestress layer as given in claim 2, the use of an adhesive as the prestress layer as given in claim 5, and the use of a composite for the ferroelectric layer as given in claim 8, all of which depend on claim 1, would also not be obvious to one with ordinary skill in the art. Accordingly, Applicants respectfully solicit reconsideration and withdrawal of the rejections to claims 2, 5, and 8.

3. Other References

The Applicants agree with the Examiner that the other references made of record (Echols, Takeuchi, Haertling and McElroy) and not relied upon do not anticipate nor do they teach or suggest the subject matter of the present invention.

CONCLUSION

In view of the above amendments and remarks, the Applicants submit that all the claims in the instant application are in a condition for allowance. The Applicants respectfully request an early action to this end.

Respectfully submitted,



Kurt G. Hammerle
Reg. No. 36,819

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757-864-2470

NASA Langley Research Center
Mail Stop 212
Hampton, VA 23681-2199